

Docket No.: 291958157US1 Client Ref No. P01-0022

(PATENT)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Wilson et al.

Application No.: 09/849,505

Confirmation No.: 8691

Examiner: W. T. Leader

Filed: May 4, 2001

Art Unit: 1741

For:

TUNING ELECTRODES USED IN A

REACTOR FOR ELECTROCHEMICALLY

PROCESSING A MICROELECTRONIC

WORKPIECE

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (IDS)

MS Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the references listed on the attached PTO/SB/08. respectfully requested that the information be expressly considered during the prosecution of this application, and that the references be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

Application No.: 09/849,505 Docket No.: 291958157US1

A copy of only the foreign patents and non patent literature documents is enclosed.

Our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 50-0665, under Order No.

291958157US1.

Dated: 10/5/04

Respectfully submitted,

Steven D. Lawrenz

Registration No.: 37,376

PERKINS COIE LLP

P.O. Box 1247

Seattle, Washington 98111-1247

(206) 359-8000

(206) 359-7198 (Fax)

Attorney for Applicant

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0851-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	10
-------	---	----	----

Complete if Known			
Application Number 09/849,505-Conf. #8691			
Filing Date May 4, 2001			
First Named Inventor Gregory J. Wilson			
Art Unit 1741			
Examiner Name W. T. Leader			
Attorney Docket Number	291958157US1		

	1	Doggerout Musels as		TENT DOCUMENTS		
xaminer nitials*	Cite No.1	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee Applicant of Cited Doo		Pages, Columns, Lines, Whe Relevant Passages or Releva
		US-09/679.928		Woodruff et al.		Figures Appear
		US-1,526,644	02-17-1925	Pinney		
		US-1,881,713	10-11-1932	Laukel		
		US-10/729,349		Klocke		
		US-10/729,357		Klocke		
		US-10/817,659		Wilson et al.		
		US-2,256,274	09-16-1941	Boedecker et al.		
		US-2001-0024611				
		US-2001-0032788	10-25-2001	Daniel Woodruff		
		US-2001-0043856	11-22-2001	Daniel Woodruff		
		US-2002-0008036	01-24-2002			
		US-2002-0008037	01-24-2002	Gregory Wilson		
		US-2002-0032499	03-14-2002	Gregory Wilson		
		US-2002-0046952		Lyndon Graham		
	•	US-2002-0079215	06-27-2002			
		US-2002-0096508		Weaver et al.		
		US-2002-0125141	09-12-2002	Gregory Wilson		
		US-2002-0139678	10-03-2002			
		US-2003-0038035	02-27-2003			
		US-2003-0062258	04-03-2003	Daniel Woodruff		
		US-2003-0070918		Kyle Hanson		-
		US-2003-0127337	07-10-2003	Kayle Hanson		
		US-2004-0031693	02-19-2004			
-	-	US-2004-0055877	03-25-2004			
+		US-2004-0099533				
		US-3,309,263	03-14-1967	Grobe		
		US-3,616,284	10/1971	Bodmer et al.		
		US-3,664,933	05-23-1972	Clauss	-	
		US-3,706,635				
		US-3,706,651	12-30-1970	Leland		
		US-3,716,462	02-13-1973	Jensen		
		US-3,798,003	03-19-1974	Ensley et al.	·	
		US-3,878,066	04-15-1975	Dettke et al.		
		US-3,930,963		Polichette et al.		
		US-3,968,885		Hassan et al.		-
		US-4,000,046	12-28-1976			
		US-4,022,679	05-10-1977			T
		US-4,030,015	10-20-1975		······································	+
		US-4,046,105	09-06-1977	Gomez	<u>-</u>	
			02-07-1978			
		US-4,082,638	04-04-1978			
\dashv		US-4,113,577	09-12-1978			
		US-4,134,802				
			02-06-1979			
			08-21-1979			
		US-4,170,959	10-16-1979	Aigo		
aminer					ate	
gnature					onsidered	1

DET 0.5 7004 30

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

2

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

10

Complete if Known					
Application Number 09/849,505-Conf. #8691					
Filing Date	May 4, 2001				
First Named Inventor	Gregory J. Wilson				
Art Unit	1741				
Examiner Name	W. T. Leader				
Attorney Docket Number	291958157US1				

	US-4,222,834	09-16-1980	Bacon et al.	
Ì	US-4,238,310	12-09-1980	Eckler et al.	
	US-4,246,088	01-20-1981	Murphy et al.	
	US-4,259,166	03-31-1981	Whitehurst	
	US-4,287,029	09-01-1981	KOUICHI SHIMAMURA	
	US-4,304,641	12-08-1981	Grandia et al.	
	US-4,323,433	04-06-1982	DAVID M. LOCH	
	US-4,341,629	07-27-1982	Uhlinger	
	US-4,360,410	11-23-1982	Fletcher et al.	
	US-4,378,283	03-29-1983	MICHAEL SEYFFERT	
	US-4,384,930	05-24-1983	Eckles	
	US-4,391,694	07-05-1983	BENGT W. RUNSTEN	
	US-4,422,915	12-27-1983	Wielonski et al.	
	US-4,431,361	02-14-1984	Bayne	
	US-4,437,943	03-20-1984	ALEXANDER F. BECK	
	US-4,440,597	04-03-1984	Wells et al.	
	US-4,443,117		Muramoto et al.	
	US-4,449,885	05-22-1984	Hertel et al.	
	US-4,451,197	05/1984	Lange	
	US-4,463,503	08-07-1984	ROBERT D. APPLEGATE	
	US-4,466,864	08-21-1984	DUANE E. BACON	
	US-4,469,566	09-04-1984	Wray	
	US-4,475,823	10-09-1984	Stone	
	US-4,480,028	10-30-1984	Kato et al.	
	US-4,495,153	01-22-1985	MINORU MIDORIKAWA	
	US-4,495,453		HAJIMU INABA	
	US-4,500,394		JOHN S. RIZZO	
	US-4,529,480	07-16-1985	Trokhan	
	US-4,541,895	09-17-1985	Albert	
	US-4,566,847	01-28-1986	TAKASHI MAEDA	
	US-4,576,685		Goffredo et al.	
	US-4,576,689	03-18-1986	ALMAXUD M. MAKKAEV	
	US-4,585,539	04-29-1986		
	US-4,604,177		OLIVO G. SIVILOTTI	
	US-4,604,178		DALE R. FIEGENER	
	US-4,634,503	01-06-1987	DANIEL NOGAVICH	
	US-4,639,028	01/1987	Olson	
	US-4,670,126	06/1987	Messer et al.	
	US-4,685,414	08-11-1987		
	US-4,687,552	08-18-1987		
	US-4,693,017		Oehler et al.	
	US-4,696,729		Santini	
	US-4,715,934	12-29-1987		
	US-4,741,624	05-03-1988		
	US-4,760,671		WILLIAM R. WARD	
	US-4,761,214		EDMUND R. HINMAN	
	US-4,770,590	09/1988	Hugues et al.	
	US-4,781,800		LEE M. GOLDMAN	
	US-4,800,818	01-31-1989	Kawaguchi et al.	

Examiner	Date
Signature	Considered



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

3

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

10

Complete If Known				
Application Number 09/849,505-Conf. #8691				
Filing Date	May 4, 2001			
First Named Inventor	Gregory J. Wilson			
Art Unit	1741			
Examiner Name	W. T. Leader			
Attorney Docket Number	291958157US1			

	US-4,828,654	Ins no 1080	RONALD G. REED	
<u> </u>		07-18-1989		
<u> </u>	US-4,849,054			
 	US-4,858,539	08-22-1989		
<u> </u>	US-4,864,239		Casarcia et al.	
 	US-4,868,992	09-26-1989		
L	US-4,898,647	02/1990	Luce et al.	
	US-4,906,341		KOJI YAMAKAWA	
	US-4,913,035		Vohringer et al.	
	US-4,924,890	05-15-1990		
	US-4,944,650	07/1990	Matsumoto	
	US-4,951,601		Maydan et al.	
	US-4,959,278		HIDENORI SHIMAUCH	
	US-4,962,726		Matsushita et al.	
	US-4,979,464		Kunze-Concewitz et al.	
	US-5,000,827	03-19-1991	VIRGIL E. SCHUSTER	
	US-5,024,746	06-18-1991	Stierman et al.	
	US-5,026,239	06-25-1991	Chiba	
	US-5,048,589	09-17-1991	Cook et al.	
	US-5,054,988	10-08-1991	Shiraiwa	
	US-5,055,036		Asano et al.	
	US-5,061,144	10-29-1991	MASAMI AKIMOTO	
	US-5,069,548	12-03-1991		
	US-5,078,852		IAN Y.K. YEE	
<u> </u>	US-5,083,364		Olbrich et al.	
	US-5,096,550		STEVEN T. MAYER	
	US-5,110,248		Asano et al.	
	US-5,115,430		ELLEN L. HAHNE	
	US-5,125,784	06-30-1992		
	US-5,128,912	07/1992	Hug et al.	
	US-5,146,136		TOSHIO OGURA	
	US-5,151,168		TERRY L. GILTON	
	US-5,155,336		Gronet et al.	
	US-5,156,174		RAYMON F. THOMPSON	
	US-5,156,174		ANILKUMAR C. BHATT	
			Thompson et al.	
	US-5,168,886		RAYMON F. THOMPSON	
ļ	US-5,168,887		Biggerstaff et al.	
	US-5,169,408			
<u> </u>	US-5,172,803	12-22-1992		
	US-5,174,045		Thompson et al.	
	US-5,178,512	01/1993	Skrobak	
	US-5,178,639	01-12-1993		
	US-5,180,273		Salaya et al.	
	US-5,183,377		Becker et al.	
	US-5,186,594		Toshima et al.	
	US-5,209,817		UMAR M. AHMAD	
	US-5,217,586		MADHAV DATTA	
	US-5,222,310		RAYMON F. THOMPSON	
	US-5,227,041		BRUCE N. BROGDEN	
	US-5,228,232	07-20-1993	RODNEY MILES	

Examiner	Date	
Signature	Considered	



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0551-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

4

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

10

Application Number	09/849,505-Conf. #8691
Filing Date	May 4, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1741
Examiner Name	W. T. Leader

291958157US1

Attorney Docket Number

Complete if Known

r -	US-5,228,966	07.20.4002	CATOCHIANIDATA	
			SATOSHI MURATA	
	US-5,230,371	07-27-1993		
-	US-5,232,511	08-03-1993		
ļ	US-5,235,995		Bergman et al.	
	US-5,238,500	08-24-1993		
	US-5,252,137		Tateyama et al.	
	US-5,252,807	10-12-1993		
	US-5,256,262		Blomsterberg	
	US-5,256,274		JAIME PORIS	
	US-5,271,953	12-21-1993		
	US-5,271,972	12-21-1993		
	US-5,301,700	04-12-1994	Kamikawa et al.	
	US-5,302,464		TAKUJI NOMURA	
	US-5,306,895	04-26-1994	Ushikoshi et al.	
	US-5,314,294	09-24-1994	TAKAO TANIGUCHI	
	US-5,316,642	05-31-1994	DAVID J. YOUNG	
	US-5,326,455	07/1994	Kubo et al.	
	US-5,330,604	07-19-1994		
	US-5,332,271	07-26-1994		
	US-5,332,445	07-26-1994		
	US-5,340,456	08-23-1994		
	US-5,344,491	09-06-1994	MARIKO KATOU	
	US-5,348,620		Hermans et al.	
	US-5,364,504		Smurkoski et al.	
	US-5,366,785	11-22-1994		
	US-5,366,786		Connor et al.	
	US-5,368,711		JAIME PORIS	
	US-5,372,848		KIM J. BLACKWELL	
1	US-5,376,176		ATSUSHI KURIYAMA	
	US-5,377,708		ERIC J. BERGMAN	
l	US-5,377,708		Bergman et al.	
 	US-5,388,945		Garric et al.	
l	US-5,391,285	02-21-1995	WILLIAM H. LYTLE	
	US-5,391,517		Gelatos et al.	
	US-5,405,518	04-11-1995		
\vdash	US-5,411,076		Matsunaga et al.	
 	US-5,421,987		Tzanavaras et al.	
	US-5,427,674		Langenskiold et al.	
	US-5,429,686	07-04-1995		
-	US-5,429,733		HIROFUMI ISHIDA	
	US-5,431,803		DiFranco et al.	
	US-5,437,777		SHUJI KISHI	
	US-5,441,629	08-15-1995		
	US-5,442,416		Tateyama et al.	
	US-5,443,707	08-13-1995		
	US-5,445,707 US-5,445,484	08-29-1995		
				
	US-5,447,615	09-05-1995 10-03-1995		
	US-5,454,405		Akimoto et al.	
<u> </u>	US-5,460,478	110-24-1995	TAKITIOLO et al.	

Examiner	Date	
Signature	Considered	



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Sub	Substitute for form 1449A/B/PTO			Complete If Known	
				Application Number	09/849,505-Conf. #8691
l IN	IFORMATIO	N DISC	CLOSURE	Filing Date	May 4, 2001
S	TATEMENT	BY AP	PLICANT	First Named Inventor	Gregory J. Wilson
				Art Unit	1741
	(Use as many sheets as necessary)			Examiner Name	W. T. Leader
Sheet	5	of	10	Attorney Docket Number	291958157US1

	US-5,464,313	11-07-1995	Obeawa	
	U\$-5,472,502		WILLIAM T. BATCHELDER	
┝	US-5,472,502 US-5,489,341			
 			Bergman et al.	
	US-5,500,081	03-19-1996		
 -	US-5,501,768		Hermans et al.	
	US-5,508,095	04-16-1996		
├	US-5,512,319	04-30-1996		· · · · · · · · · · · · · · · · · · ·
	US-5,514,258		Brinket et al.	
\vdash	US-5,516,412		Andricacos et al.	
	US-5,522,975	06/1996	Andricacos et al.	
 	US-5,527,390	06-18-1996		
\longmapsto	US-5,544,421		Thompson et al.	
ļ	US-5,549,808		MUKTA S. FAROOQ	
	US-5,567,267		Kazama et al.	
	US-5,571,325		TSUTOMU UEYAMA	
<u> </u>	US-5,571,325		Ueyama et al.	
	US-5,575,611		Thompson et al.	
	US-5,584,310		ERIC J. BERGMAN	
	US-5,584,971	12-17-1996		
	US-5,593,545		Rugowski et al.	
	US-5,597,460		H. VINCENT REYNOLDS	
\vdash	US-5,597,836		Hackler et al.	
	US-5,600,532		Michiya et al.	
	US-5,609,239	03-11-1997		· ·
	US-5,620,581	04-15-1997		
	US-5,639,206	06-17-1997	1	
	US-5,639,316		CYRIL CABRAL	
	US-5,641,613	06-24-1997		
	US-5,650,082	07-22-1997		
	US-5,651,823		Parodi et al.	
	US-5,658,387	08-19-1997	TIMOTHY J. REARDON	
	US-5,658,387		Reardon et al.	
	US-5,660,472	08-26-1997	Peuse et al.	
	US-5,660,517	08/1997	Thompson et al.	
	US-5,662,788	09-02-1997	GURTEJ SANDHU	
	US-5,664,337	09-09-1997		
	US-5,670,034	09-23-1997	KENNETH J. LOWERY	
	US-5,676,337	10/1997	Giras et al.	
	US-5,677,118	10-14-1997	Spara et al.	
	US-5,678,320	10-21-1997	Thompson et al.	
	US-5,678,320	10/1997	Thompson et al.	
	US-5,681,392	10-28-1997	EUGENE A. SWAIN	
	US-5,683,564	11-04-1997		
	US-5,684,654	11-04-1997		
	US-5,700,127	12-23-1997	JUNJI HARADA	
	US-5,711,646	01/1998	Ueda et al.	
	US-5,723,028	03-03-1998	JAIME PORIS	
	US-5,731,678	03-24-1998		
	US-5,744,019	04-28-1998		

Examiner	Date
Signature	Considered



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0551-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

6

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)	
-----------------------------------	--

10

Complete if Known			
Application Number	09/849,505-Conf. #8691		
Filing Date	May 4, 2001		
First Named Inventor	Gregory J. Wilson		
Art Unit 1741			
Examiner Name	W. T. Leader		
Attorney Docket Number	291958157US1		

US-5,746,565	05/1998	Tepolt	
US-5,747,098	05-05-1998		
US-5,755,948		Lazaro et al.	
US-5,759,006	06/1998	Miyamoto et al.	
US-5,762,751		MARTIN C. BLECK	
US-5,765,444		PAUL BACCHI	
US-5,765,889	06/1998	Nam et al.	
US-5,776,327	07-07-1998	Botts et al.	
US-5,785,826		ALEX GREENSPAN	
US-5,788,829	08-04-1998	Joshi et al.	
US-5,802,856	08-09-1998	Schaper et al.	
US-5,829,791		Kotsubo et al.	
US-5,843,296	12-01-1998	Greespan	
US-5,871,626	02-16-1999	DOUGLAS E. CRAFTS	
US-5,871,805	01-01-2001	JEROME LEMELSON	
US-5,882,498	03-16-1999	VALERY DUBIN	
US-5,892,207	04-06-1999	Kawamura et al.	
US-5,904,827	05-18-1999		
US-5,908,543		TAKASHI MATSUNAMI	
US-5,925,227	07/1999	Kobayashi et al.	
US-5,932,077	08-03-1999	H. VINCENT REYNOLDS	
US-5,937,142	08-10-1999	Moslehi et al.	
US-5,957,836	09-28-1999	Johnson	
US-5,980,706	11-09-1999	MARTIN BLECK	
US-5,985,126	11-16-1999	MARTIN C. BLECK	
US-5,989,406	11-23-1999	CHARLES P. BEETZ	
US-5,998,123	12-07-1999	Tanaka et al.	
US-6,001,235		Arken et al.	
US-6,004,828		KYLE M. HANSON	
US-6,017,820	01-25-2000	Ting et al.	
US-6,027,631	02-22-2000	ELIOT K. BROADBENT	
US-6,053,687	04-25-2000	THOMAS I. KIRKPATRICK	
US-6,072,160	06-06-2000		
US-6,072,163		Armstrong et al.	
US-6,074,544	06-13-2000	JONATHAN D. REID	
US-6,080,288	06-27-2000	Schwartz et al.	
US-6,080,291	06-27-2000	Woodruff et al.	
US-6,080,691	06-27-2000	Lindsay et al.	
US-6,086,680		Foster et al.	_
US-6,090,260		SATOSHI INQUE	
US-6,091,498		KYLE HANSON	
US-6,099,702		JONATHAN D. REID	
US-6,099,712		THOMAS L. RITZDORF	
US-6,103,085	08-15-2000		
US-6,107,192		Subrahmanyan et al.	
US-6,108,937		Raaijmakers	
US-6,110,011		SASSON SOMEKH	
 US-6,110,346		JONATHAN D. REID	
US-6,130,415	10-10-2000	Knoot	

Examiner	Date	
Signature	 Considered	



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

09/849,505-Conf. #8691

Complete if Known

Application Number

Substitute for form 1449A/B/PTO

Sheet

INFORMATION DISCLOSURE STATE

RMATION DISCLOSURE EMENT BY APPLICANT			Filing Date	May 4, 2001	
			First Named Inventor	Gregory J. Wilson	
			Art Unit	1741	
Use as many sheets as necessary)		Examiner Name	W. T. Leader		
7	of	10	Attorney Docket Number	291958157US1	

1	US-6,136,163	110 24 2000	ROBIN CHEUNG	T
	US-6,139,703			
			Hanson et al.	
	US-6,139,712		EVAN E. PATTON	
	US-6,140,234	10-31-2000		-
	US-6,143,147	11-07-2000		
	US-6,143,155		JOHN A. ADAMS	
	US-6,156,167		EVAN E. PATTON	
	US-6,157,106	12-05-2000		
	US-6,159,354		ROBERT J. CONTOLINI	
	US-6,162,344		JONATHAN D. REID	
	US-6,168,695		DANIEL J. WOODRUFF	
	US-6,174,425	01-16-2001	<u> </u>	
	US-6,174,796		Takagi et al.	
	US-6,179,983	01-30-2001		
	US-6,184,068	02-06-2001		
	US-6,193,859	02-27-2001	ROBERT J. CONTOLINI	
	US-6,218,097	04-17-2001		
	US-6,221,230	01-01-2001	HIROMITSU TAKEUCHI	
	US-6,228,232	05-08-2001	DANIEL J WOODRUFF	
	US-6,234,738	05-22-2001	KAZUO KIMATA	
	US-6,251,238	06-26-2001	Kaufman et al.	
	US-6,251,528	06-26-2001	Uzoh et al.	
	US-6,254,742	07-03-2001	Hanson et al.	
	US-6,258,220	07-10-2001	YEZDI DORDI	
	US-6,261,433	07-17-2001	UZIEL LANDAU	
	US-6,270,647		LYNDON W. GRAHAM	
	US-6,277,263	08-21-2001	LINLIN CHEN	
	US-6,278,089	08-21-2001	Young et al.	
	US-6,280,183		Mayur et al.	
	US-6,280,582		Woodruff et al.	
	US-6,280,583		Woodruff et al.	
<u> </u>	US-6,297,154		Gross et al.	
	US-6,303,010	10-16-2001		
	US-6,309,520	10-30-2001		
	US-6,309,524	10-30-2001		
	US-6,318,951	11-20-2001	··	
	US-6,322,112		Franklin Duncan	
	US-6,322,677		Daniel Woodruff	
 	US-6,342,137		Daniel Woodruff	
	US-6,365,729		Sanjay Tyagi	
	US-6,391,166		HUI WANG	
-	US-6,402,923		Steven Mayer	
 	US-6,409,892		Woodruff et al.	
	US-6,428,660		Woodruff et al.	
	US-6,428,662		Woodruff et al.	
			JOSEPH STEVENS	
 	US-6,444,101		Weaver et al.	
 	US-6,471,913		CHRISTOPHER A. HOFMEISTER	
	US-6,481,956		Valery Dubin	
	US-6,491,806	112-10-2002	I valety Dubiti	<u> </u>

Examiner	Date	
Signature	Considered	

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0551-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/B/PTO

8

Sheet

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

10

Application Number	09/849,505-Conf. #8691		
Filing Date	May 4, 2001		
First Named Inventor	Gregory J. Wilson		
Art Unit	1741		
Examiner Name	W. T. Leader		
Attorney Docket Number	291958157US1		

Complete if Known

US-6,497,801	12-24-2002	DANIEL J WOODRUFF
US-6,562,421		Go Sudo
US-6,565,729	01-24-2002	Linlin Chen
US-6,569,297	06-27-2002	Gregory Wilson
US-6,599,412	07-29-2003	Lyndon Graham
	09-27-2001	Randy Harris
US-6,632,334	12-05-2002	Timothy Anderson
US-6,660,137	01-24-2002	Gregory Wilson
US-6,699,373	08-15-2002	Daniel Woodruff
US-6,709,562	01-01-2001	PANAYOTIS C. ANDRICACOS
US-6,755,954	06-29-2004	Mayer et al.
US-60/129,055		McHugh
US-60/143,769		McHugh
US-60/182,160		McHugh et al.
US-60/206,663		Wilson et al.
US-60/294,690		Gibbons et al.
US-60/316,597		Hanson
US-60/607,046		Klocke
US-60/607,460		Klocke

		FOREIG	GN PATENT	DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document Country Code³-Number⁴-Kind Code⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T⁵
		CA-873651	06/1971	Cronin, DC		
		DE-195 25 666	10-02-1996	Huebsch et al.		
		DE-41 14 427	11-05-1992	Moritz, Heiko		Г
		EP-0 140 404 A1	08-16-1984	The Proctor & Gamble Co.		Г
		EP-0 257 670	03-02-1988	Estham et al.		İ
		EP-0 290 210	11-09-1988	Oki Electric Industry Co.		Г
		EP-0 677 612 A2	10-18-1995	Kimberly-Clark Corp.		П
		EP-0 677 612 A3	10-18-1985	Kimberly-Clark Corp		
		EP-0 881 673 A2	05-08-1998	Intl Business Machines Corp		
		EP-0 982 771 A1	08-17-1999	Lucent Technologies, Inc.		
		EP-0047132 B1	07-03-1985	Heraeus Quarzschmelze		
		EP-0290210	11-09-1988	Oki Electric Industry Co.		
		EP-0452939 B1	11-02-2000	Applied Materials, Inc.		
		EP-0544311 B1	05-15-1996	Dainippon Screen Mfg. Co. Ltd		
		EP-0582019 B1	10-18-1995	Intl Business Machines		П
		EP-1 069 213 A2	07-11-2000	Applied Materials Inc.		
		GB-2 254 288 A	03-24-1992	Scapa Group Pic		
		GB-2 279 372A	06-23-1994	Kimberly-Clark Corp.		
		GB-2217107A	03-23-1989	Canon Kabushiki Kaisha		Π
		JP-10-083960	03-31-1998	Takashi		
		JP-1048442	02-22-1989	Texas Instru Japan		
		JP-4144150	05-18-1992	Oki Electric Ind Co Ltd		Γ
		JP-5146984	06-15-1993	Murata Mach Ltd.		П
		JP-5211224	08-20-1993	Texan Instr Japan		Γ
		WO-00/02675	01-02-2000	Semitool, Inc.		
Examiner Signature				Date Considered		



PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449A/B/PTO 09/849,505-Conf. #8691 Application Number INFORMATION DISCLOSURE May 4, 2001 Filing Date STATEMENT BY APPLICANT Gregory J. Wilson First Named Inventor Art Unit 1741 (Use as many sheets as necessary) W. T. Leader Examiner Name 291958157US1 9 of 10 Attorney Docket Number Sheet

	WO-00/02808	01-20-2000	Semitool, Inc.	
	WO-00/02808 A1	01/2000	Semitool Inc.	
	WO-00/03072	01-20-2000	Woodruff et al.	
	WO-00/32835	06-08-2000	Dordi et al.	
	WO-00/61498	10-19-2000	Wilson et al.	
	WO-00/61837	10-19-2000	Wilson et al.	
	WO-01/46910 -			
	WO-01/90434	11-29-2001	Semitool, Inc.	
	WO-01/91163	11-29-2001	Semitool, Inc.	
	WO-02/02808	01-20-2000	Semitool, Inc.	
	WO-02/045476	. 06-13-2002	Semitool, Inc.	
	WO-02/097165	12-05-2002	Semitool, Inc.	
	WO-02/099165	12-12-2002	Semitool, Inc.	
	WO-02/17203	7		
	WO-02/97165	12-05-2002	Semitool, Inc.	
	WO-02/99165 ·	12-12-2002	Semitool, Inc.	
<u> </u>	WO-03/18874	. 09-03-2002		
	WO-90/00476	01-25-1990	Tuckerman	
	WO-91/04213	04-04-1991	Wong et al.	
	WO-95/06326	03-02-1995		
	WO-95/20064	07-27-1995	Berg	
	WO-99/16936	. 04-08-1996	Semitool, Inc.	
	WO-99/25904	05-27-1999	Reid et al.	
	WO-99/25905	05-27-1999	Patton et al.	
	WO-99/40615	08-12-1999	Ritzdorf et al.	
	WO-99/41434	08-19-1999	ACM Research, Inc.	
	WO-99/45745	. 09-10-1999		

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. * CITE NO.: Those patent(s) or publication(s) which are marked with an single asterisk (*) next to the Cite No. are not supplied (under 37 CFR 1.98(e)) because that application was filed after June 30, 2003. 'Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, by the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS				
Examiner Cite		Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		CONTOLINI ET AL., "Copper Electroplating Process for Sub-Half-Micron ULSI Structures," VMIC Conference 1995 ISMIC - 04/95/0322, pgs 322-328, June 17-29, 1995		
	DEVARAJ et al., "Pulsed Electrodeposition of Copper," Plating & Surface Finishing, Pgs 72-78, August 1992			
	DUBIN, "Copper Plating Techniques for ULSI Metallization," Advanced MicroDevices			
	DUBIN, V.M., "Electrochemical Deposition of Copper for On-Chip Interconnects," Advanced MicroDevices			
GAUVIN et al., "The Effect of Chloride Ions on Copper Deposition," J. of Electrochemics Society, Vol 99, pgs 71-75, February 1952 LEE, TIEN-YU TOM, "Application of a CFD Tool in Designing a Fountain Plating Cell fo Uniform Bump Plating of Semiconductor Wafers," IEE Transactions on Components, Packaging, and Manufacturing Technology (February 1996), Vol. 19, No. 1, IEEE				
Examiner Signature		Date Considered		

OTPE COL

10

Sheet

of

10

PTO/SB/08a/b (08-03)
Approved for use through 07/31/2006. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

291958157US1

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Attorney Docket Number

Substitute for form 1449A/B/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Complete if Known

Application Number 09/849,505-Conf. #8691

Filing Date May 4, 2001

First Named Inventor Gregory J. Wilson

Art Unit 1741

Examiner Name W. T. Leader

LOWENHEIM, F.A., "Electroplating," Jan 1979, 12 pgs, McGraw-Hill Book Company
LOWENHEIM, Frederick A., "Electroplating Electrochemistry Applied to Electroplating," 1978, pp 152-155, McGraw-Hill Book Company, New York
OSSRO, N.M., "An Overview of Pulse Plating," Plating and Surface Finishing, March 1986
PASSAL, F., "Copper Plating During the Last Fifty Years," Plating, pgs 628-638, June 1959
PATENT ABSTRACT OF JAPAN, "Partial Plating Device," Publication No. 01234590, Publication Date: Sept 19, 1989
PATENT ABSTRACT OF JAPAN, "Plating Method" Publication No. 57171690, Publication Date: October 22, 1982
SINGER, P., "Copper Goes Mainstream: Low k to Follow," Semiconductor International, pgs

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ** CITE NO.: Those patent(s) or publication(s) which are marked with an double asterisk (**) next to the Cite No. are not supplied because they were previously cited by or submitted to the Office in a prior application relied upon in this application for an earlier filing date under 35 U.S.C. 120.

Examiner	Date
Signature	Considered

^{&#}x27;Applicant's unique citation designation number (optional). ²Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/21 (04-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

13

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	09/849,505-Conf. #8691
Filing Date	May 4, 2001
First Named Inventor	Gregory J. Wilson
Art Unit	1741
Examiner Name	W. T. Leader
Attorney Docket Number	291958157US1

<u></u>					
ENCLOSURES (Check all that apply)					
Fee Transmittal Form	Drawing(s)	After Allowance communication to Technology Center (TC)			
Fee Attached	Licensing-related Papers	Appeal Communication to Board of Appeals and Interferences			
Amendment/Reply	Petition	Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)			
After Final	Petition to Convert to a Provisional Application	Proprietary Information			
Affidavits/declaration(s)	Power of Attorney, Revocation Change of Correspondence Address	Status Letter			
Extension of Time Request	Terminal Disclaimer	X Other Enclosure(s) (please Identify below):			
Express Abandonment Request	Request for Refund	SB08 (10 Pages); References Cited (65 Enclosed); Postcard; Check			
X Information Disclosure Statement	CD, Number of CD(s)				
Certified Copy of Priority Document(s)					
Response to Missing Parts/ Incomplete Application	Remarks				
Response to Missing Parts under 37 CFR 1.52 or 1.53					
\ \(\sigma \)	URE OF APPLICANT, ATTORNEY, OF	ACENT			
Firm PERKINS OF LLI Steven Lawrenz	······································	(AGENI			
Signature					
Date					
	•				

an envelope addressed to: MS Amendm			Express Mail, Airbill No. EV342447115, in xandria, VA 22313-1450, on the date
bated: 10/5/04	Signature: Muloof 4	Ahmy	(Melody Almberg)